REMARKS

The office action mailed July 13, 2007 has been carefully considered. Within the office action, claims 16-23 and 29-31 have been rejected and claims 1, 3, 5-15 and 32 are allowed. The applicants have amended claim 16. Reconsideration in view of the following remarks is respectfully requested.

Information Disclosure Statement

Within the Office Action, the examiner has requested copies of the non-patent publications which were cited in the prior two information disclosure statements filed in the present case. Applicants hereby include copies of the non-patent publications with this reply.

Rejection(s) Under 35 U.S.C. § 102

Claims 29-31 were rejected under 35 U.S.C. § 102(e) as being allegedly anticipated by Ogata (U.S. pat. no. 6,171,191). The applicants respectfully traverse.

According to the M.P.E.P., a claim is anticipated under 35 USC § 102 only if each and every claim element/limitation is described, either expressly or inherently, in a single prior art reference.

Applicants' specification describes techniques for controlling a vibrotactile interface controller using more sophisticated force effects, as well as techniques for enhancing the vibrotactile feedback output by such vibrotactile controllers. Applicants' specification expressly defines the term "vibrotactile device" or "vibrotactile feedback device" to refer to any controller or interface device that outputs vibrations to the user of the device, and can include gamepads,

handheld steering wheels, fishing-type controllers, joysticks, mice, trackballs, adult devices, grips, remote controls, handheld game devices, flat screens, styluses, etc. In contrast, the term "kinesthetic device" or similar term is described in the specification to refer to devices that provide forces along the axes or degrees of freedom of motion of a manipulandum of the device.

Applicants' specification goes on to state that the inventive embodiments address how to translate existing kinesthetic haptic effects to vibrotactile haptic effects. According to the specification, many existing types of kinesthetic effects exist, but a problem occurs when a vibrotactile device is used with an application program that is meant to be used for a kinesthetic haptic device such as a steering wheel, force feedback joystick or kinesthetic force feedback mouse. Many types of kinesthetic haptic effects, such as springs, dampers, and obstructions, may have no meaning in a vibrotactile device if output without modification, since most vibrotactile devices do not output forces to resist or assist motion of a manipulandum of the device. (Specification, [0041]). This is completely different than what is taught in Ogata.

Ogata merely describes a vibration generation apparatus which allows vibration frequencies to be controlled to produce various modes of vibration. In particular, Ogata expressly describes a system having the function of reproducing an information recording medium, in which the system executes a program recorded on the recording medium by sending a machine actuating command signal to the machine by user actuation and by receiving signals from the machine. The control unit has a housing and a vibration motor mounted via a vibration motor mounting portion provided in the housing. The vibration motor includes a motor casing, a shaft rotatably supported by the motor casing, and an eccentric member mounted on the shaft. The eccentric member has a rotor and a plurality of coils mounted on the rotor which is mounted on the shaft. The vibration motor also includes a magnet mounted on the casing for facing the

eccentric member, and a supplying member for supplying the driving current to each coil. The eccentric member is rotated when the driving current is supplied to each coil to cause vibrations of the vibration motor itself, with the vibrations being supplied via the housing to the user. (Ogata, Abstract).

However, Ogata does not disclose or mention anywhere in its specification of receiving a command associated with a kinesthetic haptic effect, as recited in claims 29-31. In fact, Ogata does not even mention the word "kinesthetic" in its specification. Further, Ogata does not disclose that a **kinethestic haptic effect** is a non-periodic effect, as recited in Claim 29. Instead, it is admitted in the Office Action that the rotor (or vibrotactile interface device) is what experiences the non-periodic effect. Applicant's specification goes to great pains to distinguish the difference between vibrotactile and kinethestic haptic effects, and these distinguishing features of claims 29-31 are not disclosed in Ogata. Further Ogata does not mention kinesthetic haptic effects nor the mapping of the kinesthetic haptic effect into a vibrotactile haptic effect, as recited in Claim 29. For at least these reasons, Ogata does not disclose each and every element/limitation in Claim 29, and Claim 29 is therefore distinguishable and allowable over Ogata.

In regards to Claim 30, the statements made in the Office Action confuse the vibrotactile haptic effect with the kinethestic haptic effect. As recited in Claim 30, it is the **kinethestic haptic effect** which is a spring effect. Further Ogata does not mention kinesthetic haptic effects nor the mapping of the kinesthetic haptic effect into a vibrotactile haptic effect, as recited in Claim 30. For at least these reasons, Ogata does not disclose each and every element/limitation in Claim 30, and Claim 30 is therefore distinguishable and allowable over Ogata.

In regards to Claim 31, the statements made in the Office Action confuse the vibrotactile haptic effect with the kinethestic haptic effect. As recited in Claim 31, it is the **kinethestic haptic effect** which is a damper effect. Further Ogata does not mention kinesthetic haptic effects nor the mapping of the kinesthetic haptic effect into a vibrotactile haptic effect, as recited in Claim 31. For at least these reasons, Ogata does not disclose each and every element/limitation in Claim 31, and Claim 31 is therefore distinguishable and allowable over Ogata.

Rejection(s) Under 35 U.S.C. § 103 (a)

Claims 16, 17, 19-21 and 23 were rejected under 35 U.S.C. § 103(a) as being allegedly unpatentable Ogata over in view of Furuki US pat. No. 6,268,671.

To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. In re Vaeck, 947 F.2d 488 (Fed. Cir. 1991).

In determining obviousness four factual inquiries must be looked into in regards to determining obviousness. These are determining the scope and content of the prior art; ascertaining the differences between the prior art and the claims in issue; resolving the level of ordinary skill in the pertinent art; and evaluating evidence of secondary consideration. Graham v. John Deere, 383 U.S. 1 (1966); KSR Int'l Co. v. Teleflex, Inc., No 04-1350 (U.S. Apr. 30, 2007) (" Often, it will be necessary . . . to look into related teachings of multiple patents; the

effects of demands known to the design community or present in the marketplace; and the background knowledge possessed by a person having ordinary skill in the art, all in order to determine whether there was an **apparent reason** to combine the known elements in the fashion claimed by the patent at issue. To facilitate review, this analysis **should be made explicit**.") (emphasis added).

In determining the differences between the prior art and the claims, the question under 35 U.S.C. 103 is not whether the differences themselves would have been obvious, but whether the claimed invention as a whole would have been obvious. Stratoflex, Inc. v. Aeroquip Corp., 713 F.2d 1530 (Fed. Cir. 1983). Thus, when considering the whole prior art reference its entirety, portions that would lead away from the claimed invention must be considered. W.L. Gore & Associates, Inc. v. Garlock, Inc., 721 F.2d 1540 (Fed. Cir. 1983), See M.P.E.P. 2141.02. Thus, it is improper to combine references where the references teach away from their combination. In re Grasselli, 713 F.2d 731 (Fed. Cir. 1983).

Within the Office action, it is alleged that Ogata inherently teaches that magnitude of the vibration being independent of the frequency of the vibration since magnitude and frequency are two distinct characteristics of the vibration. The Applicants assume that the Office Action has intended to take official notice of these facts under M.P.E.P. 2144.03 that the rationale supporting the obviousness rejection is based on common knowledge in the art or "well-known" prior art. Under M.P.E.P. 2144.03, "[i]f the applicant traverses such an assertion the examiner should cite a reference in support of his or her position." Applicant hereby traverses this assertion brought by the Examiner and respectfully requests that a reference be cited in support of the position outlined in the Office Action in regards to Claim 16. Applicant would like to point

out that it is not enough to take official notice or show "state of the art" that magnitude and frequency are two distinct characteristics. Instead, it is that the Examiner must take official notice or show "state of the art" that the magnitude of the vibration being based on the duty cycle of the control signal and independent of the frequency, as expressly recited in Claim 16.

Nonetheless, the Applicants have amended Claim 16 to recite that the mass comes into contact with the obstacle member, which is not disclosed in Ogata. In particular, the elastic sheet 125 is on the outside wall of the vibration motor housing, and thus the motor does not come into contact with the elastic sheet 125 to move it in the opposite direction. Accordingly, the combination of Ogata and Furuki does not teach or suggest each and every element/limitation in Claim 16 as required to establish a prima facie case of obviousness. For at least these reasons, Claim 16 is allowable over Ogata and Furuki.

Claims 17-23 are dependent on independent Claim 16. For at least the reasons stated above, Claim 16 is allowable over Ogata in view of Furuki. Accordingly, Claims 17-23 are allowable for being dependent on an allowable base claim.

Conclusion

It is believed that this reply places the above-identified patent application into condition for allowance. Early favorable consideration of this reply is earnestly solicited.

If, in the opinion of the Examiner, an interview would expedite the prosecution of this application, the Examiner is invited to call the undersigned attorney at the number indicated below.

Applicants respectfully request that a timely Notice of Allowance be issued in this case. Please charge any additional required fee or credit any overpayment not otherwise paid or credited to our deposit account No. 50-1698.

Respectfully submitted,

Dated: 10/15/07

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